

We have applied an interval regression model to ensure that the results take into account such uncertainty. Further we have employed latent variable models to identify subgroups of respondents within the dataset. A reference group can then be identified, rather than excluding respondents according to arbitrary decision rules. **RESULTS:** A latent variable approach was found to accommodate heterogeneity in the respondent cohort, providing better sensitivity compared to medians (which might otherwise be expected to fulfil a similar role). Interval regression (both log-normalised and otherwise) appears to have only had a small impact on the subsequently derived quality of life in each health state, though it may be considered a more accurate result. The log-normalised interval regression approach also reduced the effect of extreme WTD scores. **CONCLUSIONS:** We have explored alternative statistical techniques for tackling some of the challenges associated with TTO data. The use of simple regression analysis may not necessarily be the most accurate reflection of population preferences. Techniques such as interval regression and latent variable models should be further investigated in future.

PRM173

DEVELOPMENT OF A DISCRETE CHOICE EXPERIMENT TO ASSESS PATIENTS' AND PROFESSIONALS' PREFERENCES FOR HOME ENTERAL NUTRITION

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OBJECTIVES: The aim of this study is to develop and nourish a discrete choice experiment according to the conjoint-analysis systematic development procedures that would allow assessing patients' and professionals' preferences for the characteristics of home enteral nutrition (HEN) via tube feeding, and the concordance of answers between patients and their caregivers in Spain. **METHODS:** Different attributes and levels were extracted from the published literature and presented to two focal groups formed by patients receiving HEN (n=5) and HEN experts (n=6). Both groups were asked to identify which attributes and levels were relevant when choosing a HEN product, according to their personal or professional experience. In addition, the focal group of patients had to assess if the drafting of those attributes and levels would be intelligible for other patients. A fractional factorial analysis using the support.CES package for the statistical software R was performed to define the scenarios that would be used on the questionnaire. **RESULTS:** From all the characteristics presented to focal groups, participants identified 6 attributes as relevant, including 2 levels each: TOLERANCE (easily/hardly tolerable), ADAPTATION TO COMORBIDITIES (adaptable/not adaptable to other present comorbidities), NUTRIENTS AND CALORIES (provides/does not provide the nutrients and calories needed by the patient), CONTAINER CHARACTERISTICS (its characteristics make easier/harder to handle the packaging), CONNECTIONS BETWEEN THE CONTAINER AND THE FEEDING TUBE (product connections are easy/hard to perform) and INFORMATION (the container includes/does not include information about the nutrient composition and branding). From the 64 possible scenarios, the fractional factorial analysis generated 8 sets of choices that fulfilled the properties of orthogonality and balance. **CONCLUSIONS:** The first steps of the conjoint-analysis systematic development procedure, has allowed to describe the final HEN characteristic of importance for patients and professionals that later on will produce each scenario utility values.

PRM174

MEASURING THE IMPACT OF SECONDARY PROGRESSIVE MULTIPLE SCLEROSIS (SPMS) IN THE ASCEND TRIAL: EQUATING THE MSIS-29, MSWS-12, ABILHAND-56 AND SF-36

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OBJECTIVES: ASCEND is a phase 3, randomized, double-blind, placebo-controlled trial assessing whether natalizumab slows disability progression in SPMS. The objective of this study was to carry out an empirical post-hoc analysis of ASCEND blinded baseline data to equate items from the Multiple Sclerosis Walking Scale (MSWS-12), Multiple Sclerosis Impact Scale (MSIS-29), ABILHAND-56, and Short-Form 36 (SF-36) in order to provide a clearer understanding of the relationship between their respective items on "Physical" and "Psychosocial" impact measurement continua. **METHODS:** MSWS-12, MSIS-29, ABILHAND-56, and SF-36 data from 889 patients were combined based on a predefined conceptual framework (contrasting broad domains of physical and psychosocial impact). Rasch Measurement Theory (RMT) analyses were performed on the equating item banks using RUMM2030 software to examine: scale-to-sample targeting, item fit, local dependency, and reliability. **RESULTS:** The 'Physical Impact' item bank showed adequate scale performance except for some reversed thresholds (5 of 92) and misfit (5 of 92 fit residuals; 20 of 92 Chi-square). Relative item locations implied that, in general, lower limb related items represent the less impacted end of the continuum followed by upper limb related items; general limitations items tended to sit in the middle of the measurement continuum. The 'Psychosocial Impact' item bank performed psychometrically well, except for some misfit (7 of 15 fit residuals; 2 of 15 Chi-square). Relative item locations implied that 'worries' and 'anxieties' are at the less impacted end of the continuum followed by 'mood' and 'depression' items. These findings are consistent with clinical expectation. **CONCLUSIONS:** Psychometrically, the 'Physical Impact' and 'Psychosocial Impact' equating item banks proposed have strong measurement properties. However, issues related to response options and item fit still require consideration (in both banks), and coverage could still be improved in the 'Psychosocial Impact' equating bank due to the relatively small number of items.

PRM175

WHAT DO WE MEAN WHEN WE TALK ABOUT "U.S. SPANISH"?

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OBJECTIVES: Identify the make-up of the Spanish-speaking population in the United States; assess the impact of immigration on language; analyse issues faced during linguistic validation of Clinical Outcomes Assessments (COA). **METHODS:** We investigated population numbers of native-Spanish speakers in the US; researched statistics regarding country-of-origin; reviewed linguistic validation projects for the U.S. and Latin America (LATAM); compared the results. **RESULTS:** The 2010 census revealed that 16% of the U.S. population were of Hispanic or Latino origin, with 13% of children under five years old speaking a form of Spanish at home. We discovered that the distribution of Spanish speakers varies according to country of origin, with pockets of high densities. For example, regionally, the South is home to the majority of South American Hispanics (42%), the West is home to 51% of Mexicans, and the Northeast has welcomed over three quarters of Dominican Republicans in the U.S.. Hispanics of Mexican origin have the highest population of Spanish-speakers in the U.S. but those of South American and other Central American origins have markedly increased since 2000. There are significant differences in terminology used across Spanish-speaking populations. One example of this variation is the use of 'once every other day', a common instruction for COA or medication administration. The various translations used LATAM included 'one day yes and one day no', 'take once a day on alternating days' and 'every third day'. This diversity demonstrates the number of influences on the U.S. Spanish language due to the varied population, but is only the tip of the iceberg. **CONCLUSIONS:** We recommend that, during linguistic validation, a specific translation is developed for use in the U.S. by working with linguists from a range of LATAM countries. This will ensure a neutral translation is created that will be acceptable to the diverse range of Spanish-speaking individuals throughout the U.S.

PRM176

DEVELOPMENT OF A PREFERENCE-BASED INSTRUMENT: COMPARED WITH EQ-5D

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OBJECTIVES: Our study aims to investigate any additional domain more specific to Asian countries while retaining the existing domains of EQ-5D centered on Western society. After identifying candidate domains, we examined the level of health in a general population and compared the results from EQ-5D with additional domains and the ones from original EQ-5D. **METHODS:** We organized candidate domains that could be included in the preference-based HRQoL instrument after reviewing the HRQoL measures and conducted focus group discussion (FGD) targeting the general public. To examine the practicality of the HRQoL measure, we conducted the survey with nationally representative 1,000 adults aged 19 to 69 in Korea. In order to assess the influence of each domain on HRQoL, we performed quantile and logistic regression analyses using the visual analog scale (EQ-VAS) and self-rated health as a dependent variable. **RESULTS:** As the result of FGD, vision, hearing, speaking, memory, sleep, vitality, happiness, and close relationship were established as additional measurement domains. Through survey, the mean EQ-VAS score was 80.11 (standard deviation 12.84). Among those who did not have problems in the EQ-5D's 5 domains, the number of people who reported problems in vitality was 244 (37.2%), happiness 130 (19.8%), and sleep 71 (10.8%). Among them, the number of people who described their self-rated health from "good" to "poor" was as high as 76 (11.6%). In the quantile regression model, pain/discomfort and anxiety/depression from the EQ-5D domains and vision, sleep, vitality, and happiness from the additional domains showed statistical significance. Also, the explanatory powers increased. Among the additional 8 domains, the group with vitality, sleep and happiness had a higher probability of having good self-rated health. **CONCLUSIONS:** Vitality, sleep and happiness were significant additional factors for new HRQoL domains. However, since many other factors may exist outside of HRQoL domains, various aspects should be considered when developing a new tool.

PRM177

ASSESSMENT OF CONTENT EQUIVALENCE AND USABILITY BETWEEN THE PAPER AND ELECTRONIC VERSIONS OF THE PSORIASIS SYMPTOM AND SIGN DIARY (PSSD) AMONG SUBJECTS WITH PLAQUE PSORIASIS

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OBJECTIVES: To assess content equivalence and usability between paper and electronic versions of the Psoriasis Symptom and Sign Diary (PSSD) on a handheld (24-hour recall) and tablet (7-day recall) among subjects with plaque psoriasis. **METHODS:** A cross-sectional, qualitative study was conducted involving one-on-one cognitive and usability interviews in US adults with physician-confirmed plaque psoriasis. Each participant completed the 24-hour version on paper and handheld and the 7-day version on paper and tablet, before being interviewed. Participants were randomized to order of recall period and mode administration. Interviews were conducted in two rounds with revisions made to both devices between rounds. **RESULTS:** The mean age of sample (N=14) was 51 (range: 32 to 73 years); 57% were female. The majority (n=12, 86%) reported positive overall impressions of the handheld and tablet, finding them easy to use and more convenient than paper. Participants also found the PSSD content similar between versions. In Round 1, all participants (n=7) suggested increasing the size of the NRS scale, questions or instructions on the handheld; 4 participants selected a different response than intended due to small scale size. For the tablet, suggestions included increasing the font size and highlighting selected responses. As a result of Round 1, the font size of the PSSD was increased on the handheld, the tablet was updated to highlight the response selected in a different color, and additional